UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/805,157	03/19/2004	Nischal Abrol	030389	8635

23696 7590 10/16/2008

QUALCOMM INCORPORATED
5775 MOREHOUSE DR.
SAN DIEGO, CA 92121

EXAMINER	
SATKIEWICZ, THOMAS E	
ART UNIT	PAPER NUMBER
2614	

NOTIFICATION DATE	DELIVERY MODE
10/16/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

us-docketing@qualcomm.com
kascanla@qualcomm.com
nanm@qualcomm.com

Office Action Summary	Application No.	Applicant(s)	
	10/805,157	ABROL ET AL.	
	Examiner	Art Unit	
	Thomas E. Satkiewicz	2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 June 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5,9 and 15-39* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,9 and 15-39* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

Applicant's amendment filed 06/25/2008 has been entered. Claims 1-5, 9, 15, 22-27, 33 and 34 have been amended. Claims 6-8 and 10-14 have been cancelled. No Claims have been added. Claims 1-5, 9, and 15-39 are still pending in this application, with claims 1, 22, 28, 33-35 and 37-39 being Independent claims.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1-5, 9, 15-23, 25-26, and 28-39 rejected under 35 U.S.C. 103(a) as being unpatentable over Haggerty et al. (U.S. 6,331,983) (Haggerty), and further in view of Compressing TCP/IP Headers for Low-Speed Serial Links RFC1144 (RFC1144).

With regards to Claim 1, Haggerty teaches a apparatus (Apparatus; Column 1, Line 4) for efficiently processing an Internet Protocol (IP) packet (IP Packets; Column 1, Lines 52-53) incoming (Originally Arrived; Column 13, Line 55) to a mobile station [Multicast-Enable Host (MCast), 1-6; Fig 5; Column 16, Line 26] comprising: a receiver for receiving (In Port; Column 16, Line 53) the IP packet (IP Packets; Column 1, Lines 52-53); a storage (Memory; Column 16, Line 50), communicatively (Maintains Currently Active Connections; Column 16, Line 49) associated with said receiver (In Port; Column 16, Line 53), for storing a list (Connection Table, 34; 6; Column 16, Line 49), wherein the list (Connection Table, 34; 6; Column 16, Line 49) comprises includes a connection identification (Tuple; Column 16, Line 52) of an active originator [Source Medium Access Control (MAC), 35; Fig 6; Column 16, Line 57] or an active destination [Destination (Dest) Medium Access Control (MAC), 36; Fig 6; Column 16, Line 57) or both; and a comparator (MCast Switch, 14; Fig 6; Column 16, Line 62) for comparing (Matches; Column 16, Line 60) a connection identification (Tuple; Column 16, Line 52) of the IP packet (IP Packets; Column 1, Lines 52-53) with the connection identification (Tuple; Column 16, Line 52) in the list (Connection Table, 34; 6; Column 16, Line 49) and forwarding (Switched; Column 16, Line 64) the IP packet (IP Packets; Column 1, Lines 52-53), without decompressing the IP packet (IP Packets; Column 1, Lines 52-53), to an intended destination (Dest MAC, 36; Fig 6; Column 16, Line 57) depending on the comparison (Matches; Column 16, Line 60).

However, Haggerty fails to teach Van Jacobson VJ Connection Identification of an active originator.

However, RFC1144 teaches a Connection Identifier (Section 3.1).

Therefore it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to combine RFC1144 with Haggerty, because compressing data to be sent over the internet is a common practice and a necessity, and Van Jacobson Compression is one form of compressing data, and the Tuple in Haggerty looks like the Tuple in RFC1144 (Section 3.1).

With regards to Claim 2, Haggerty teaches an apparatus (Apparatus; Column 1, Line 4), wherein said comparator (MCast Switch, 14; Fig 6; Column 16, Line 62) forwards (Switched; Column 16, Line 64) the IP packet (IP Packets; Column 16, Lines 52-52) if the connection identification (Tuple; Column 16, Line 52) of the IP packet (IP Packets; Column 16, Lines 52-530) matches (Matches; Column 16, Line 60) the connection identification (Tuple; Column 16, Line 52) in the list (Connection Table, 34; 6; Column 16, Line 49).

However, Haggerty fails to teach Van Jacobson VJ Connection Identification.

See Claim 1 on Van Jacobson Connection Identification.

With regards to Claim 3, Haggerty teaches an apparatus (Apparatus; Column 1, Line 4), wherein said comparator (MCast Switch, 14; Fig 6; Column 16, Line 62) forwards (Switched; Column 16, Line 64) the IP packet (IP Packets; Column 16, Lines 52-53) if the connection identification (Tuple; Column 16, Line 52) of the IP packet (IP Packets; Column 16, Lines 52-53) does not match (Matches; Column 16, Line 60) the connection identification (Tuple; Column 16, Line 52) in the list (Connection Table, 34;

6; Column 16, Line 49).

However, Haggerty fails to teach Van Jacobson VJ Connection Identification.

See Claim 1 on Van Jacobson Connection Identification.

With regards to Claim 4, Haggerty teaches an apparatus (Apparatus; Column 1, Line 4), wherein the connection identification (Tuple; Column 16, Line 52) stored (Memory; Column 16, Line 50) in the list (Connection Table, 34; 6; Column 16, Line 49) indicates an active destination (Maintains Currently Active Connections; Column 16, Line 49) at the mobile station (MCast, 1-6; Fig 5; Column 16, Line 26).

However, Haggerty fails to teach Van Jacobson VJ Connection Identification.

See Claim 1 on Van Jacobson Connection Identification.

With regards to Claim 5, Haggerty teaches an apparatus (Apparatus; Column 1, Line 4), wherein the connection identification (Tuple; Column 16, Line 52) stored (Memory; Column 16, Line 50) in the list (Connection Table, 34; 6; Column 16, Line 49) indicates an active destination (Maintains Currently Active Connections; Column 16, Line 49) at a terminal (MCast, 1-6; Fig 5; Column 16, Line 26 associated with the mobile station (MCast, 1-6; Fig 5; Column 16, Line 26.

However, Haggerty fails to teach Van Jacobson VJ Connection Identification.

See Claim 1 on Van Jacobson Connection Identification.

With regards to Claim 9, Haggerty teaches an apparatus (Apparatus; Column 1, Line 4), wherein the connection identification (Tuple; Column 16, Line 52) stored (Memory; Column 16, Line 50) in the list (Connection Table, 34; 6; Column 16, Line 49) indicates an active originator of a communication (Maintains Currently Active

Connections; Column 16, Line 49) between the mobile station (MCast, 1-6; Fig 5; Column 16, Line 26) and a remote application (Dest MAC, 36; Fig 6; Column 16, Line 57).

However, Haggerty fails to teach Van Jacobson VJ Connection Identification.

See Claim 1 on Van Jacobson Connection Identification.

With regards to Claim 15, Haggerty teaches a filter for efficiently processing data packet (Packets; Column 16, Line 28) incoming (Receiving; Column 16, Line 29) to a mobile station (MCast, 1-6; Fig 5; Column 16, Line 26), comprising: a receiver (In Port; Column 16, Line 53) for receiving IP data packets (IP Packets; Column 1, Lines 52-53) and Van Jacobson (VJ) uncompressed data packets (IP Packets; Column 1, Lines 52-53) delineator (MCast Router, 127; Fig 2; Column 13, Lines 5-6) for identifying the IP data packets (IP Packets; Column 1, Lines 52-53) from the uncompressed data packets (IP Packets; Column 1, Lines 52-53), wherein said delineator (MCast Router, 127; Fig 2; Column 13, Lines 5-6) seeks a connection identification (Tuple; Column 16, Line 52) in the uncompressed packets (IP Packets; Column 1, Lines 52-53) as destined for the mobile station (MCast, 1-6; Fig 5; Column 16, Line 26), and wherein said delineator (MCast Router, 127; Fig 2; Column 13, Lines 5-6) forwards (Routed; Column 13, Line 9) the connection identification (Tuple; Column 16, Line 52) to a connection identification (Tuple; Column 16, Line 52) list (Connection Table, 34; 6; Column 16, Line 49) for subsequently assessing a destination (Dest MAC, 36; Fig 6; Column 16, Line 57) of compressed packets (IP Packets; Column 1, Lines 52-53) associated with the uncompressed packets (IP Packets; Column 1, Lines 52-53).

However, Haggerty fails to teach Van Jacobson VJ Connection Identification.

See Claim 1 on Van Jacobson Connection Identification.

With regards to Claim 16, Haggerty teaches a filter, wherein, upon delineation (Stripped Away; Column 13, Line 7) by said delineator (MCast Router, 127; Fig 2; Column 13, Lines 5-6) of an IP packet (IP Packets; Column 1, Lines 52-53), said delineator (MCast Router, 127; Fig 2; Column 13, Lines 5-6) seeks a received connection identification (Tuple; Column 16, Line 52) in a subsequent one of the uncompressed packets (IP Packets; Column 1, Line 52-53) upon delineation (Stripped Away; Column 13, Line 7) of one of the IP packets (IP Packets; Column 1, Line 52-53) if the one of the IP packets (IP Packets; Column 1, Line 52-53) is delineated (Stripped Away; Column 13, Line 7) as destined for the mobile station (MCast, 1-6; Fig 5; Column 16, Line 26).

However, Haggerty fails to teach Van Jacobson VJ Connection Identification.

See Claim 1 on Van Jacobson Connection Identification.

With regards to Claim 17, Haggerty teaches a filter, further comprising a tether (Local Subnet, 137; Fig 2; Column 12, Line 4) to at least one terminal equipment (MCast, 121, 122, & 123; Fig 2; Column 12, Lines 1-2) communicatively associated with said delineator (MCast Router, 129; Fig 2; Column 12, Line 1).

With regards to Claim 18, Haggerty teaches a filter, wherein ones of the uncompressed packets (IP Packets; Column 1, Lines 52-53) not delineated (Stripped Away; Column 13, Line 7) as destined for the mobile station (MCast, 121, 122, & 123;

Fig 2; Column 12, Lines 1-2) are destined for the terminal equipment (MCast, 121, 122, & 123; Fig 2; Column 12, Lines 1-2).

However, Haggerty fails to teach Van Jacobson VJ Connection Identification.

See Claim 1 on Van Jacobson Connection Identification.

With regards to Claim 19, Haggerty teaches a filter, wherein ones of the IP packets (IP Packets; Column 1, Lines 52-53) are delineated (Stripped Away; Column 13, Line 7), and wherein ones of the IP packets (IP Packets; Column 1, Lines 52-53) not delineated (Stripped Away; Column 13, Line 7) as destined for the mobile station (MCast, 121, 122, & 123; Fig 2; Column 12, Lines 1-2) are destined for the terminal equipment (MCast, 121, 122, & 123; Fig 2; Column 12, Lines 1-2).

With regards to Claim 20, Haggerty teaches a filter, further comprising a snooper (Snooping Mechanism; Column 18, Line 17), wherein the connection identification list (Connection Table, 34; 6; Column 16, Line 49) is maintained at said snooper (Snooping Mechanism; Column 18, Line 17).

With regards to Claim 21, Haggerty teaches a filter, wherein at least one subsequent compressed packets (IP Packets; Column 1, Lines 52-53) to a one of the uncompressed packets (IP Packets; Column 1, Lines 52-53) having a connection identification (Tuple; Column 16, Line 52) on the connection identification (Tuple; Column 16, Line 52) list (Connection Table, 34; 6; Column 16, Line 49) is uncompressed at the mobile station (MCast, 121, 122, & 123; Fig 2; Column 12, Lines

1-2) by said snooper (Snooping Mechanism; Column 18, Line 17).

However, Haggerty fails to teach Van Jacobson VJ Connection Identification.

See Claim 1 on Van Jacobson Connection Identification.

With regards to Claim 22, Haggerty teaches method for efficiently processing a compressed data packet (IP Packets; Column 1, Lines 52-53) incoming (Originally Arrived; Column 13, Line 55) to a mobile station (MCast, 121, 122, & 123; Fig 2; Column 12, Lines 1-2), comprising: receiving the compressed data packet (IP Packets; Column 1, Lines 52-53); storing (Memory; Column 16, Line 50) a list (Connection Table, 34; 6; Column 16, Line 49), wherein the list (Connection Table, 34; 6; Column 16, Line 49) comprises connection identification (Tuple; Column 16, Line 52) of an active application in progress; and comparing (Matches; Column 16,Line 60) a connection identification (Tuple; Column 16, Line 52) of the compressed data packet (IP Packets; Column 1, Lines 52-53) with the connection identification (Tuple; Column 16, Line 52) in the list (Connection Table, 34; 6; Column 16, Line 49) and forwarding the compressed data packet (IP Packets; Column 1, Lines 52-53), without decompressing the compressed data packet (IP Packets; Column 1, Lines 52-53), to an intended destination (Designed Output Port; Column 16, Line 64) depending on the comparison (Matches; Column 16,Line 60).

However, Haggerty fails to teach Van Jacobson VJ Connection Identification and VJ Compressed Data Packet.

See Claim 1 on Van Jacobson Connection Identification.

With regards to Claim 23, Haggerty teaches a method, further comprising: alternatively uncompressing the compressed data packet (IP Packets; Column 1, Lines 52-53) locally to the received connection identifier (Tuple; Column 16, Line 52).

However, Haggerty fails to teach Van Jacobson VJ Compressed Data Packet.

See Claim 1 on Van Jacobson Connection Identification.

With regards to Claim 25, Haggerty teaches a method, wherein the list (Connection Table, 34; 6; Column 16, Line 49) comprises connection identification (Tuple; Column 16, Line 52) of an active destination (Currently Active Connections; Column 16, Line 49).

However, Haggerty fails to teach Van Jacobson VJ Connection Identification.

See Claim 1 on Van Jacobson Connection Identification.

With regards to Claim 26, Haggerty teaches a method, wherein the list (Connection Table, 34; 6; Column 16, Line 49) comprises connection identification (Tuple; Column 16, Line 52) of an active originator (Currently Active Connections; Column 16, Line 49).

However, Haggerty fails to teach Van Jacobson VJ Connection Identification.

See Claim 1 on Van Jacobson Connection Identification.

With regards to Claim 28, Haggerty teaches a method for efficiently filtering at least one packet (IP Packets; Column 1, Lines 52-53) incoming to a mobile station

(Mobile Sender; Column 20, Line 50), comprising: receiving IP ones (Binary Digits; Column 12, Line 29) and uncompressed ones (Binary Digits; Column 12, Line 29) of the at least one packet (IP Packets; Column 1, Lines 52-53); delineating the IP ones (Binary Digits; Column 12, Line 29) from the uncompressed ones (Binary Digits; Column 12, Line 29) of the IP packets (IP Packets; Column 1, Lines 52-53); seeking a connection identification (Tuple; Column 16, Line 52) in a one of the uncompressed packets (IP Packets; Column 1, Lines 52-53) upon said delineating of the one of the uncompressed packets (IP Packets; Column 1, Lines 52-53) as destined for the mobile station (Mobile Sender; Column 20, Line 50); forwarding the connection identification (Tuple; Column 16, Line 52) to a connection identification list (Connection Table, 34; 6; Column 16, Line 49).

However, Haggerty fails to teach Van Jacobson VJ Uncompressed Ones and VJ Uncompressed Packet.

See Claim 1 on Van Jacobson Connection Identification.

With regards to Claim 29, Haggerty teaches a method, further comprising subsequently assessing (Determine; Column 11, Line 7) a destination (Where to Send; Column 11, Line 8) of at least one compressed packet (IP Packets; Column 1, Lines 52-53) associated with the one of the uncompressed packets (IP Packets; Column 1, Lines 52-53) in accordance with the connection identification list (Connection Table, 34; 6; Column 16, Line 49).

However, Haggerty fails to teach Van Jacobson VJ Uncompressed Packets and VJ Compressed Packet.

See Claim 1 on Van Jacobson Connection Identification.

With regards to Claim 30, Haggerty teaches a method, further comprising seeking a received connection identification (Tuple; Column 16, Line 52) in a subsequent one of the uncompressed packets (IP Packets; Column 1, Lines 52-53) upon said delineating (Stripped Away; Column 13, Line 7) of the one of the IP packets (IP Packets; Column 1, Lines 52-53) as destined for the mobile station (Mobile Sender; Column 20, Line 50).

However, Haggerty fails to teach Van Jacobson VJ Uncompressed Packets.

See Claim 1 on Van Jacobson Connection Identification.

With regards to Claim 31, Haggerty teaches a method, further comprising tethering at least one terminal equipment (MCast, 121, 122, & 123; Fig 2; Column 12, Lines 1-2) to said delineating (Stripped Away; Column 13, Line 7).

With regards to Claim 32, Haggerty teaches a method, further comprising forwarding ones (Binary Digits; Column 12, Line 29) of the uncompressed packets (IP Packets; Column 1, Lines 52-53) not delineated (Stripped Away; Column 13, Line 7) by said delineating (Stripped Away; Column 13, Line 7) as destined for the mobile station (Mobile Sender; Column 20, Line 50) to the terminal equipment (MCast, 121, 122, & 123; Fig 2; Column 12, Lines 1-2).

However, Haggerty fails to teach Van Jacobson VJ Uncompressed Packets.

See Claim 1 on Van Jacobson Connection Identification.

With regards to Claim 33, Haggerty teaches a system for efficiently processing a packet (IP Packets; Column 1, Lines 52-53) incoming to a mobile station (Mobile Sender; Column 20, Line 50), comprising: a filter resident (Filter Connection, Step 203; Fig 7A; Column 26, Line 29) on said mobile station (Mobile Sender; Column 20, Line 50) that differentiates an IP packet (IP Packets; Column 1, Lines 52-53) from a uncompressed packet (IP Packets; Column 1, Lines 52-53); a PDSN (MCast Switch, 14-19; Fig 5; Column 16, Line 23) in communication with said mobile station (Mobile Sender; Column 20, Line 50); a terminal equipment (MCast, 121, 122, & 123; Fig 2; Column 12, Lines 1-2) communicatively tethered to said mobile station (Mobile Sender; Column 20, Line 50); a snooper (Snooping Mechanism; Column 18, Line 17) on said mobile station (Mobile Sender; Column 20, Line 50), wherein said snooper (Snooping Mechanism; Column 18, Line 17) receives a compressed packet (IP Packets; Column 1, Lines 52-53) from said PDSN (MCast Switch, 14-19; Fig 5; Column 16, Line 23) and said terminal equipment (MCast, 121, 122, & 123; Fig 2; Column 12, Lines 1-2), wherein the compressed packet (IP Packets; Column 1, Lines 52-53) is compared to a list (Connection Table, 34; 6; Column 16, Line 49) that includes connection identification (Tuple; Column 16, Line 52) of an active originator (Currently Active Connections; Column 16, Line 49) and an active destination (Currently Active Connections; Column 16, Line 49) for the compressed packet (IP Packets; Column 1, Lines 52-53), wherein the active destination (Currently Active Connections; Column 16, Line 49) is resident at

terminal equipment (MCast, 121, 122, & 123; Fig 2; Column 12, Lines 1-2) or a site associated with the PDSN (MCast Switch, 14-19; Fig 5; Column 16, Line 23); and a connection local to said mobile station (Mobile Sender; Column 20, Line 50) for receiving the compressed packet (IP Packets; Column 1, Lines 52-53) having the connection identifier (Tuple; Column 16, Line 52) that matches the connection identifier (Tuple; Column 16, Line 52) in the list (Connection Table, 34; 6; Column 16, Line 49).

However, Haggerty fails to teach Van Jacobson VJ Uncompressed Packets and VJ Compressed Packet.

See Claim 1 on Van Jacobson Connection Identification.

With regards to Claim 34, Haggerty teaches a snooper (Snooping Mechanism; Column 18, Line 17) for efficiently processing at least one Internet Protocol (IP) packet (IP Packets; Column 1, Lines 52-53) incoming to a mobile station (Mobile Sender; Column 20, Line 50), comprising: a storage element (Memory; Column 16, Line 50) for storing a list (Connection Table, 34; Fig 6; Column 16, Line 49) of connection identifications (CID) (Tuple; Column 16, Line 52), each CID (Tuple; Column 16, Line 52) associated with an active application (Currently Active Connection; Column 16, Line 49) running on the mobile station (Mobile Sender; Column 20, Line 50); and processing element (MCast Switch, 14-19; Fig 5; Column 16, Line 23) configured to differentiate between a packet (IP Packets; Column 1, Lines 52-53) with a CID (Tuple; Column 16, Line 52) and a packet (IP Packets; Column 1, Lines 52-53) without a CID (Tuple; Column 16, Line 52), and if the packet (IP Packets; Column 1, Lines 52-53) has a CID

(Tuple; Column 16, Line 52), to compare (Matches; Column 16, Line 60) the CID (Tuple; Column 16, Line 52) against the list (Connection Table, 34; Fig 6; Column 16, Line 49) of VJ CIDs (Tuple; Column 16, Line 52) in the list (Connection Table, 34; Fig 6; Column 16, Line 49).

However, Haggerty fails to teach Van Jacobson VJ connection identification CID.

See Claim 1 on Van Jacobson Connection Identification.

With regards to Claim 35, Haggerty teaches a method for using a mobile station (MS) (Mobile Sender; Column 20, Line 50) as a gateway for applications (Connection Table, 34; Fig 6; Column 16, Line 49) running on either the MS (Mobile Sender; Column 20, Line 50) or a terminal equipment (TE) (MCast Host, 1-6; Column 16, Line 33) tethered to the MS (Mobile Sender; Column 20, Line 50), comprising: forming a MS (Mobile Sender; Column 20, Line 50) application list (Connection Table, 34; Fig 6; Column 16, Line 49) comprising connection identification (CID) information (Tuple; Column 16, Line 52); snooping (Snooping Mechanism; Column 18, Line 17) incoming IP packets (Packet Data; Column 18, Line 12) for CID information (Tuple; Column 16, Line 52); comparing each snooped (Snooping Mechanism; Column 18, Line 17) CID information (Tuple; Column 16, Line 52) with CID information (Tuple; Column 16, Line 52) on the MS (Mobile Sender; Column 20, Line 50) application list (Connection Table, 34; Fig 6; Column 16, Line 49); if the snooped (Snooping Mechanism; Column 18, Line 17) CID information (Tuple; Column 16, Line 52) is on the MS (Mobile Sender; Column 20, Line 50) application list (Connection Table, 34; Fig 6; Column 16, Line 49), then

passing the IP packet (Packets; Column 16, Line 56) to a MS (Mobile Sender; Column 20, Line 50) application (Connection Table, 34; Fig 6; Column 16, Line 49); and if the snooped (Snooping Mechanism; Column 18, Line17) CID information (Tuple; Column 16, Line 52) is not on the MS application list (Connection Table, 34; Fig 6; Column 16, Line 49), then passing the IP packet Packets; Column 16, Line 56) to a TE (MCast Host, 1-6; Column 16, Line 33) application (Connection Table, 34; Fig 6; Column 16, Line 49).

With regards to Claim 36, Haggerty teaches a method, wherein forming the MS (Mobile Sender; Column 20, Line 50) application list (Connection Table; Column 20, Line 32) comprises: filtering (Filter; Column 20, Line 33) an internet protocol (IP) packet (IP Receivers; Column 20, Line 35) for an application destination (Host Source Address; Column 20, Line 61); and if the application destination (Host Source Address; Column 20, Line 61) is located at the MS (Mobile Sender; Column 20, Line 50), then adding the CID (Tuple; Column 16, Line 52) of the IP packet to the MS (Mobile Sender; Column 20, Line 50) application list (Connection Table; Column 20, Line 32).

With regards to Claim 37, Haggerty teaches a method for assessing the destination (Destination and Source; Column 16, Lines 55-56) of an Internet Protocol (IP) packet (Packets; Column 16, Line 56) that has arrived (Switched; Column 16, Line 56) at a mobile station (MS) (Mobile Sender; Column 20, Line 50) without uncompressing a compressed header of the IP packet (Packets; Column 16, Line 56), wherein the MS (Mobile Sender; Column 20, Line 50) acts as a gateway for applications running on either the MS (Mobile Sender; Column 20, Line 50) or a terminal equipment

(Conventional Equipment; Column 6, Line 48) (TE) tethered to the MS (Mobile Sender; Column 20, Line 50), the method comprising: determining (Matches; Column 16, Line 60) whether the IP packet (Packets; Column 16, Line 56) has a TCP/IP packet header (IP header; Column 4, Line 35); determining (Matches; Column 16, Line 60) whether the TCP/IP packet header (IP header; Column 4, Line 35) is compressed or uncompressed; if the TCP/IP packet header (IP header; Column 4, Line 35) is uncompressed, then adding a connection identification (CID) (Tuple; Column 16, Line 52) the IP packet (Packets; Column 16, Line 56) to an application list (Connection Table, 34; Fig 6; Column 16, Line 49) if the TCP/ID packet header (IP header; Column 4, Line 35) is compressed, then comparing (Matches; Column 16, Line 60) the CID of the IP packet (Packets; Column 16, Line 56) to each CID (Tuple; Column 16, Line 52) on the application list (Connection Table, 34; Fig 6; Column 16, Line 49); if the CID (Tuple; Column 16, Line 52) of the IP packet (Packets; Column 16, Line 56) is on the application list (Connection Table, 34; Fig 6; Column 16, Line 49), then passing the IP packet (Packets; Column 16, Line 56) to the MS without uncompressing the compressed header (IP header; Column 4, Line 35); and if the CID (Tuple; Column 16, Line 52) of the IP packet (Packets; Column 16, Line 56) is not on the application list (Connection Table, 34; Fig 6; Column 16, Line 49), then forwarding the IP packet (Packets; Column 16, Line 56) to the TE (Conventional Equipment; Column 6, Line 48) without uncompressing the compressed header (IP header; Column 4, Line 35).

However, Haggerty fails to teach Van Jacobson VJ Uncompressed Packets and VJ Compressed Packet.

See Claim 1 on Van Jacobson Connection Identification.

With regards to Claim 38, Haggerty teaches an apparatus for using a mobile station (MS) (Mobile Sender; Column 20, Line 50) as a gateway for applications running on either the MS (Mobile Sender; Column 20, Line 50) or a terminal equipment (TE) (Conventional Equipment; Column 6, Line 48) tethered to the MS (Mobile Sender; Column 20, Line 50), comprising: means for forming a MS (Mobile Sender; Column 20, Line 50) application list (Connection Table, 34; Fig 6; Column 16, Line 49) comprising connection identification (CID) information (Tuple; Column 16, Line 52); means for snooping incoming IP packets (IP Packets; Column 1, Lines 52-53) for CID information (Tuple; Column 16, Line 52) and for comparing each snooped (Snooping Mechanism; Column 18,Line 17) CID information (Tuple; Column 16, Line 52) with CID information (Tuple; Column 16, Line 52) on the MS (Mobile Sender; Column 20, Line 50) application list (Connection Table, 34; Fig 6; Column 16, Line 49); and means for passing the IP packet (IP Packets; Column 1, Lines 52-53) to a MS (Mobile Sender; Column 20, Line 50) application if the snooped (Snooping Mechanism; Column 18,Line 17) CID information (Tuple; Column 16, Line 52) is on the MS (Mobile Sender; Column 20, Line 50) application list (Connection Table, 34; Fig 6; Column 16, Line 49) and for passing the IP packet (IP Packets; Column 1, Lines 52-53) to a TE (Conventional Equipment; Column 6, Line 48) application if the snooped (Snooping Mechanism; Column 18,Line 17) CID information (Tuple; Column 16, Line 52) is not on the MS (Mobile Sender; Column 20, Line 50) application list (Connection Table, 34; Fig 6; Column 16, Line 49).

However, Haggerty fails to teach Van Jacobson VJ Uncompressed Packets and VJ Compressed Packet or Header

See Claim 1 on Van Jacobson Connection Identification.

With regards to Claim 39, Haggerty teaches an apparatus for assessing the destination of an Internet Protocol (IP) packet (IP Packets; Column 1, Lines 52-53) that has arrived at a mobile station (MS) (Mobile Sender; Column 20, Line 50) without uncompressing a compressed header of the IP packet (IP Packets; Column 1, Lines 52-53), wherein the MS (Mobile Sender; Column 20, Line 50) acts as a gateway for applications running on either the MS (Mobile Sender; Column 20, Line 50) or a terminal equipment (TE) (Conventional Equipment; Column 6, Line 48) tethered to the MS (Mobile Sender; Column 20, Line 50), the apparatus comprising: means for determining whether the IP packet (IP Packets; Column 1, Lines 52-53) has a TCP/IP packet header (IP header; Column 4, Line 35) and for determining whether the TCP/IP packet header (IP header; Column 4, Line 35) is compressed or uncompressed; means for adding a connection identification (CID) (Tuple; Column 16, Line 52) of the IP packet (IP Packets; Column 1, Lines 52-53) to an application list (Connection Table, 34; Fig 6; Column 16, Line 49) if the TCP/IP packet header (IP header; Column 4, Line 35) is uncompressed; means for comparing the CID (Tuple; Column 16, Line 52) of the IP packet (IP Packets; Column 1, Lines 52-53) to each CID (Tuple; Column 16, Line 52) on the application list (Connection Table, 34; Fig 6; Column 16, Line 49) if the TCP/ID packet header (IP header; Column 4, Line 35) is compressed; and means for passing the IP packet (IP Packets; Column 1, Lines 52-53) to the MS (Mobile Sender; Column 20, Line 50)

without uncompressing the compressed header (IP header; Column 4, Line 35) if the CID (Tuple; Column 16, Line 52) of the IP packet (IP Packets; Column 1, Lines 52-53) is on the application list (Connection Table, 34; Fig 6; Column 16, Line 49) and for passing the IP packet (IP Packets; Column 1, Lines 52-53) to the TE (Conventional Equipment; Column 6, Line 48) without uncompressing the compressed header (IP header; Column 4, Line 35) if the CID (Tuple; Column 16, Line 52) of the IP packet (IP Packets; Column 1, Lines 52-53) is not on the application list (Connection Table, 34; Fig 6; Column 16, Line 49).

However, Haggerty fails to teach Van Jacobson VJ Uncompressed Packets and VJ Compressed Packet or Header

See Claim 1 on Van Jacobson Connection Identification.

4. Claims 24 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haggerty et al. (U.S. 6,331,983) (Haggerty), in view of Compressing TCP/IP Headers for Low- Speed Serial Links RFC1144 (RFC1144), and further in view of Jonsson et al. (U.S. 7,212,511) (Jonsson).

With regards to Claim 24, Jonsson teaches a method, wherein said uncompressing (Compressed; Column 6, Line 32) is local at the mobile station (Wireless Terminal; Column 6 Line 47).

Therefore it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to combine Jonsson with RFC1144 and Haggerty,

because compressing/uncompressing data to be sent over the internet is a common practice, useful and necessary and Van Jacobson Compression is one form of compressing data.

With regards to Claim 27, Jonsson teaches a method, wherein said uncompressing (Compressed; Column 6, Line 32) is local at a terminal equipment (Conventional Equipment; Column 6, Line 48) associated with the mobile station (Wireless Terminal; Column 6 Line 47).

See Claim 24 on compressing/uncompressing data over the Internet.

Response to Arguments

5. Applicant's arguments with respect to claims 1-5, 9, and 15-39 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas E. Satkiewicz whose telephone number is (571) 270-1948. The examiner can normally be reached on Monday to Thursday 6:30AM to 3:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad Matar can be reached on (571) 272-7488. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thomas E Satkiewicz/
Examiner, Art Unit 2614

/Ahmad F. Matar/
Supervisory Patent Examiner, Art Unit 2614